AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-7 (Canceled)

8. (Currently Amended) ~~An optical system as claimed in claim 7,~~ An information display optical system comprising:

a display element that displays an image formed by light of different wavelength bands;

a prism that transmits an image light incident thereon from the display element; and

a holographic optical element including a plurality of holograms that have diffraction efficiency in the different wavelength bands so as to be capable of reproducing different wavefronts in the different wavelength bands, the holographic optical element having an optical power equivalent to an optical power of a concave free-form reflective surface so as to function as an eyepiece lens by directing the image light from the display element to an observer's eye,

wherein aberration resulting from a fact that the light transmitted through the prism includes light of the different wavelength bands is corrected by the holographic optical element reproducing the different wavefronts in the different wavelength bands and wherein the corrected aberration is longitudinal chromatic aberration that occurs along an optical axis of the optical system.

9. (Currently Amended) An optical system as claimed in claim [[7]] 8, wherein the ~~corrected aberration is~~ holographic optical element also corrects a chromatic aberration that occurs perpendicularly to the optical axis of the optical system.

10. (Currently Amended) An optical system as claimed in claim [[7]] 8, wherein the holograms included in the holographic optical element are reflective holograms.

11. (Currently Amended) A method for fabricating a holographic optical element to correct a chromatic aberration having diffraction efficiency in a plurality of wavelength bands, comprising:

a plurality of steps of irradiating a holographic material with two light beams so as to record interference fringes produced between the two light beams on the holographic material, the plurality of steps being performed successively or simultaneously,

wherein, from one step to a next, wavelengths of the light beams with which the holographic material is irradiated are changed and a wavefront of at least one of the light beams is changed by a transmissive optical element that transmits light or by a diffractive optical element that diffracts light relative to at least one other light beam to correct the chromatic aberration, the at least one other light beam having a different wavelength than the at least one of the light beams, and wherein dispersion by the transmissive optical element or the diffractive optical element permits optical positions of the light beam sources relative to the holographic material to be varied.

12. (Canceled)

13. (Canceled)

14. (New) A method for fabricating a holographic optical element as claimed in claim 11,

wherein the corrected chromatic aberration is a chromatic aberration occurring perpendicular to the optical axis.

15. (New) A method for fabricating a holographic optical element as claimed in claim 11,

wherein the corrected chromatic aberration is a longitudinal chromatic aberration.

16. (New) A method for fabricating a holographic optical element as claimed in claim 11,

wherein the holographic element so fabricated is a reflective hologram.

17. (New) A method for fabricating a holographic optical element as claimed in claim 11,

wherein the holographic element so fabricated is a volume-type, phase-type hologram that does not substantially absorb light.

18. (New) A method for fabricating a holographic optical element as claimed in claim 12,

wherein the transmissive optical element that transmits light is a prism.

19. (New) An optical system as claimed in claim 8,

wherein the holograms included in the holographic optical element are volume-type, phase-type holograms that do not substantially absorb light.